K-PLUS ENGINEERING, LLC

Direct Dial: 312.207.5700
E-Mail: dan@kplus.com

April 23, 2015

Mr. Michael Beslow
On-Scene Coordinator
US EPA, Region 5
77 W. Jackson (SE-5J)
Chicago, IL 60604

RE: Response Action Summary, Subsurface Investigation,
and Future Proposed Actions Addendum
Olympic Oil Company
5000 W. 41st Street
Cicero, Illinois

Dear Mr. Beslow:

As indicated in Section 6.0 of the Response Action Summary, Subsurface Investigation and Future Proposed Action report (the Report) submitted to U.S. EPA on April 16, 2015, K-Plus returned to the above referenced property on Wednesday, April 15, 2015 for purpose of collecting a water sample from each of the monitoring wells inside of the containment area that was impacted by the February ethylene glycol (EG) spill. The data from this round of samples was then compared to the prior sample data from the same wells which was generated in late February before the recovery wells were installed on site. The locations of samples discussed in this addendum are reflected on the figures in the Report, and capitalized terms used in this addendum are also consistent with the Report.

Before any sample was collected, K-Plus followed standard well sampling protocol and attempted to purge each of the wells of at least 3 well volumes to ensure that any sample was representative of actual water conditions within the adjacent formation. Unfortunately, there was less than three well volumes of water in MW5 and MW8, so available water was purged in those wells and then they were allowed to sit until they produced a sufficient volume to collect a sample for analysis.

Once all wells were sampled, all samples were collected using low-flow sampling methods, stored on ice, and then submitted to STAT Analysis in Chicago, Illinois for EG analysis. The analytical results for each of the four samples were then compared to applicable Illinois EPA TACO cleanup objectives for EG in Class II ground water (14 mg/L) and the prior sample data

for the same well. The following is a discussion of the results. A copy of the lab data has also been attached to this addendum for reference.

Investigation Results Compared to GW Remediation Objectives

Constituent of Concern	Well No./ Sampling Location	Date	Maximum Detected Concentration (mg/kg)	Class I Objectives (mg/kg)	Class II Objectives (mg/kg)
Ethylene Glycol[1]	MW10/S1 (initial)	2/19/15	**23,000**	14	14
Ethylene Glycol[2]	MW10/S4 (after purge)	2/19/15	**9,100**	14	14
Ethylene Glycol	MW10	2/25/15	**4,200**	14	14
Ethylene Glycol	KP8/KP9W	2/25/15	**360**	14	14
Ethylene Glycol	KP5/MWA	2/26/15	**480**	14	14
Ethylene Glycol	KP11	2/26/15	**---**	14	14
Ethylene Glycol	KP5/MW5	4/15/15	<10	14	14
Ethylene Glycol	KP8/MW8	4/15/15	**51**	14	14
Ethylene Glycol	MW10	4/15/15	**80**	14	14
Ethylene Glycol	KP11/MW11	4/15/15	**22,000**	14	14

Notes:

1. MW10/S1 (initial) was collected from groundwater monitoring well 10 before purging the well. IEPA sampling methods detail that groundwater monitoring wells should be purged, by the removal of approximately three well volumes, before samples are collected. In this case, a sample was collected before (initial) and after the purge (after purge).

2. MW10/S4 was collected after the removal of approximately three well volumes.

3. KP11 never produced any water. It was allowed to stabilize and charge for 24 hours, 48 hours, even 72 hours yet no measurable water was observed and no sample was collected.

1. MW5 (co-located with KP5 near the northeast corner of the containment area), EG was not detected with a detection limit of 10 mg/L. On Feb 25, a sample from this same well had 480 mg/kg of EG. The location has shown substantial improvement and it is now below cleanup objectives.

2. MW8 (co-located with KP 8 in the northwest portion of the containment area), EG was detected at 51 mg/L. On Feb 25, a sample from this well contained 360 mg/kg. This location is also substantially better but not less than the cleanup objective.

3. At MW10 (the historic containment area monitoring well in the southeast portion of the containment area near the base of slope), EG was detected at 80 mg/L. On Feb 19-25, we had results from that well ranging from 23,000 mg/L (before purge) to 4,200 (after purge). Again, this well is substantially better but it is still not less than cleanup objective.

4. At MW11 (west of MW10 near the base of slope), EG was detected at 22,000 mg/L. No prior sample was ever collected from this well due to lack of water in the tight soil following its installation last February. While these results may initially seem to be high, they are not a big cause for concern for several reasons. The concentration of EG found in this well on April 15, 2015 is similar to what we had initially obtained at MW10. As noted above, the concentration in that well is now at 80 mg/L. Additionally, MW 11 is located between RW2 (to the northeast) and RW3 (to the northwest). To date, Recovery well 3 has not recovered any liquid and RW2 has collected very little. In fact the only recovery well that has produced more than a few gallons of liquid over the past 6 weeks has been RW1 near the northeast corner of the containment area. This is not surprising given that all subsurface investigations of this area have consistently shown that the near surface geology consists of a dense clay layer that is not conducive to ground water or contaminant flow and which is in fact effectively preventing any horizontal or vertical migration. So while a decent quantity of liquid has been removed from RW1, it has had no impact on movement of liquid at MW11 and similarly RW1 has not been adversely impacted by the contaminants found at MW11.

   The liquid found last week in MW11 is believed to be isolated poolingat the base of the incline below the location of the initial spill. Once the soft soil surrounding this well is removed and after pumping additional liquid from this well, we expect to see the EG level to drop significantly. The EG found in MW11 does not pose an imminent and substantial endangerment to human health or the environment.

Section 9.0 of the Report detailed the future actions that we proposed to implement at the site in order to complete the response to the February 2015 anti-freeze spill. Specifically, we proposed to remove additional soil in the area of the soil sample locations with sample results that exceeded the TACO SRO for SCGIER (migration to groundwater) thresholds) and we proposed to remove the pumps from RW3 and RW4. Finally we noted that upon review of the April 15, 2015 monitoring well data we would make any necessary adjustments to those proposed actions.

At this time, we propose the following changes to the response actions described in the Report. Although the soil samples at location KP11 showed very low levels of EG (3.3 mg/kg in the shallowest sample and below detection at greater depth, see the results table in Report Appendix 3), we propose to remove additional soil in the area of KP11/MW11. In addition, we propose to

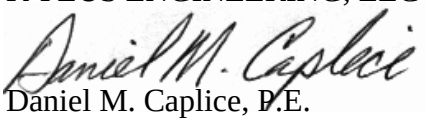
actively pump all liquid from MW11 to remove any liquid that may have seeped into the cavity adjacent to this well from the pooled liquid in the surrounding surficial soil. Following the soil removal and after actively pumping the well for one week, we will resample this well. Once the well no longer is able to produce any liquid or after the readings have dropped to acceptable levels, the active pumping will be stopped.

Subject to your approval, we plan to initiate all of the proposed future work detailed in the Report and this addendum between April 27 and May 1. Additionally, I understand that the Agency or its contractor collected samples at the site on April 3, April 7, and April 9. If you wish us to consider those sampling events in our evaluations and proposed response action plans, please advise us of the details of the samples.

Finally, you asked for some clarification as to the timing and reasons for our conclusion in the Report that there is no imminent and substantial endangerment to human health or the environment at this site. While we cannot specify a precise day on which we reached that conclusion, it has been our conclusion for quite some time. This conclusion is based on the general low levels of contamination detected in the soil and ground water, the effective operation of the recovery wells, and the significant evidence that the clay soil at the site has significantly retarded and prevented migration of any ground water or contaminants at the site.

If you have any questions regarding any information contained in this Addendum, please contact me.

Sincerely,
K-PLUS ENGINEERING, LLC



Daniel M. Caplice, P.E.
Attachments (1)

cc. K. Keutzer
J. Zellers
I. Boyle
L. Foret
G. Martz
T. Dimond

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

April 17, 2015

K-Plus Engineering, LLC
15 Spinning Wheel Drive
Hinsdale, IL 60521

Telephone: (312) 207-1600
Fax: (312) 831-2191

Analytical Report for STAT Work Order: 15040431 Revision 0

RE: 24163, Olympic Oil

Dear Phillip Montana:

STAT Analysis received 4 samples for the referenced project on 4/15/2015 3:10:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Frank Capoccia
Project Manager

STAT Analysis Corporation

Date: April 17, 2015

Client: K-Plus Engineering, LLC
Project: 24163, Olympic Oil
Work Order: 15040431 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15040431-001A	MW 5		4/15/2015 2:30:00 PM	4/15/2015
15040431-002A	MW 8		4/15/2015 2:35:00 PM	4/15/2015
15040431-003A	MW 10		4/15/2015 2:50:00 PM	4/15/2015
15040431-004A	MW 11		4/15/2015 2:55:00 PM	4/15/2015

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: April 17, 2015
Date Printed: April 17, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 24163, Olympic Oil **Work Order:** 15040431 Revision 0

Lab ID: 15040431-001 **Collection Date** 4/15/2015 2:30:00 PM
Client Sample ID: MW 5 **Matrix:** Liquid

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **4/16/2015**		Analyst: **MEP**
Ethylene Glycol	ND	10		mg/L	1	4/16/2015

Lab ID: 15040431-002 **Collection Date** 4/15/2015 2:35:00 PM
Client Sample ID: MW 8 **Matrix:** Liquid

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **4/16/2015**		Analyst: **MEP**
Ethylene Glycol	51	10		mg/L	1	4/16/2015

Lab ID: 15040431-003 **Collection Date** 4/15/2015 2:50:00 PM
Client Sample ID: MW 10 **Matrix:** Liquid

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **4/16/2015**		Analyst: **MEP**
Ethylene Glycol	80	10		mg/L	1	4/16/2015

Lab ID: 15040431-004 **Collection Date** 4/15/2015 2:55:00 PM
Client Sample ID: MW 11 **Matrix:** Liquid

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **4/16/2015**		Analyst: **MEP**
Ethylene Glycol	22000	1000		mg/L	100	4/17/2015

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
2242 W. Harrison Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386
e-mail address: *STATinfo@STATAnalysis.com* ***AIHA, NVLAP and NELAP accredited***

CHAIN OF CUSTODY RECORD

Nº: 859984 **Page :** 1 **of** 1

Company: KT
Project Number: 24163 Client Tracking No.:
Project Name: Olympic Oil
Project Location:
Sampler(s): [illegible]
Report To: _____ Phone: 312-207-1600
Fax:
QC Level: 1 ____ 2 ____ 3 ____ 4 ____ e-mail: DanO@kplus.com

P.O. No.:
Quote No.:

Turn Around: 48 hr
Results Needed:
/ / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	Remarks	Lab No.:
MW 5	4/15	2:30	water				1		001
MW 8		2:35					1		002
MW 10		2:50					1		003
MW 11		2:55					1		004

Relinquished by: (Signature) [signature] Date/Time: 4/15/ 3:05
Received by: (Signature) [signature] Date/Time: 4/15/15 3:10
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments:

Laboratory Work Order No.: 1504043

Received on Ice: Yes ☐ No ☒
Temperature: Ambient

Preservation Code: A = None B = HNO_3 C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

STAT Analysis Corporation

Sample Receipt Checklist

Client Name K-PLUS | Date and Time Received: 4/15/2015 3:10:00 PM

Work Order Number 15040431 | Received by: DJ

Checklist completed by: Signature 4/15/15 Date | Reviewed by: Initials 4/16/15 Date

Matrix: | Carrier name | Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature Ambient °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples pH checked?	Yes ☐	No ☐	Checked by:
Water - Samples properly preserved?	Yes ☐	No ☐	pH Adjusted?

Any No response must be detailed in the comments section below.

Comments:

Client / Person contacted: | Date contacted: | Contacted by:

Response: